

## 3.10 Public Safety

This section evaluates the risks to human health and safety that could result from implementation of the proposed project.

### 3.10.1 Setting

#### Dam Inundation Area

Lake Perris is located in unincorporated Riverside County near the Cities of Perris and Moreno Valley, and in close proximity to the March Air Reserve Base. The dam was built in 1974 during a time when little other development existed in the Perris Valley. In the event of a dam failure, the dam was designed to discharge up to 3,800 cfs into the valley with no particular conveyance facility to guide the water toward downstream river beds. Figure 3.7-3 shows the modeled inundation zone of the dam. This area currently encompasses large developed areas of Perris and Moreno Valley.

DWR completed the *Perris Dam Foundation Study* in 2005 that concluded that the alluvium underlying a portion of the embankment was susceptible to liquefaction and that large liquefaction-induced embankment deformations could occur along some segments of the dam during a large earthquake. This embankment deformation would allow water to flow over the dam crest. As a result of this study, the elevation of Lake Perris was reduced from 1588 to 1563 feet amsl. The reduction in water level substantially reduced the risk of dam failure.

#### State Recreation Area

The Lake Perris SRA provides varied recreational opportunities that attract hikers, campers, and boaters. Visitors to the facility are allowed to access most of the park with little restriction. Most of the facility's developed areas occur on the northern shore of the lake. Parking lots and boat launches attract the greatest number of park visitors to this area. The remaining park is open to the public. Hikers may access remote areas of the Lake Perris SRA either on or off of existing trails during the day or night. Camping areas are located on either shore of the lake. Rock climbing opportunities exist in the Bernasconi Hills area. The park is patrolled by full-time California State Park rangers.

### 3.10.2 Regulatory Framework

#### Federal

##### *Occupational Safety and Health Administration*

OSHA is a federal agency responsible for establishing worker health and safety standards. OSHA regulations cover worker education, site control, personal safety equipment, hazards exposure, and safe work practices. OSHA has regulatory authority to impose fines on employers that are found to violate OSHA health and safety standards. All construction sites are subject to OSHA regulations and inspections.

## State

### ***California Division of Safety of Dams***

The California Water Code entrusts the regulatory Dam Safety Program to DWR. The principal goal of this program is to avoid dam failure and thus prevent loss of life and destruction of property. The DSOD reviews plans and specifications for the construction of new dams or for the enlargement, alteration, repair, or removal of existing dams under application and must grant written approval before the owner can proceed with construction. Professional engineers and geologists from the DSOD evaluate each project, investigate proposed sites, and check available construction materials. Dams under DSOD jurisdiction include artificial barriers, together with appurtenant works, which are 25 feet or more in height or have an impounding capacity of 50 acre-feet or more. Any artificial barrier not in excess of six feet in height, regardless of storage capacity, or that has a storage capacity not in excess of 15 acre-feet, regardless of height, is not considered jurisdictional (DSOD, 2006).

### ***California Government Code Section 8589.5***

This section of the California Code of Regulations requires that cities have emergency procedures in place for the evacuation and control of populated areas within the limits of inundation below dams. The responsibility for disaster planning and emergency response belongs to the local jurisdictions.

## **3.10.3 Impacts and Mitigation Measures**

### **Significance Criteria**

For the purposes of this EIR and consistency with Appendix G of the *CEQA Guidelines*, applicable local plans, and agency and professional standards, the project would have a significant impact to water quality or surface waters if it would:

- Substantially alter existing drainage patterns or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on or off the site;
- Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam; or
- Expose people to hazards from construction activities.

### **Dam Failure**

The proposed project would reduce the potential for dam failure due to seismic hazards. As a result, the risk of inundation to land uses below the dam would be reduced. Dam safety is regulated by DSOD, which instigated the liquefaction analysis of the dam. The local cities and the county have primary responsibilities for disaster planning and emergency response including dam failure. The Cities of Perris and Moreno Valley have prepared emergency evacuation plans. City and county law enforcement are involved in public notification and emergency evacuation. Furthermore, the emergency outlet extension would provide the mechanism for a controlled

emergency release of the lake of 1500 cfs. Therefore, the project would not increase the public safety risk associated with the Perris Dam.

The project would not alter existing draining patterns or expose people to structures that could result in significant injury or death through flooding. Therefore, the above significance criteria are not discussed further within the report.

## Construction Hazards

### **Impact 3.10-1: Construction of the proposed project could expose Lake Perris SRA visitors to hazards from construction activities.**

Access is generally uncontrolled within the Lake Perris SRA. Park visitors may be encountered in any area within the park at any time of day or night. The eastern shore is accessible from the land and from the lake. The proposed project would involve the use of large machinery that could pose hazards to park visitors. The southern and eastern shores of the lake are frequented by boaters, hikers, swimmers, rock climbers, and campers. Construction in this area would include excavation of over 1.5 million cy of lake bed sediments and transportation of the material on a haul road to the opposite side of the dam. Figure 2-8 identifies a construction zone that encompasses the haul road routes, excavation areas, blasting areas, stockpiling locations, and backfilled areas. In order to protect public safety, these construction zones would be fenced off and access would be restricted during construction periods. The Bernasconi campground would be closed for the duration of the construction period. Figure 2-8 identifies the portion of the Lake Perris SRA that would be closed and off-limits to the general public for the duration of construction activities. Mitigation Measures 3.10-1a and 3.10-1b would assist in reducing risk of accidents involving park visitors during the construction activities.

Construction equipment, including blasting agents, would be stored on site. Use of blasting agents would be strictly controlled consistent with OSHA, USEPA, and DOT regulations. Control measures for blasting would provide for the protection of park visitors including the control of flyrock from blasts (see Mitigation Measure 3.9-1d).

## Mitigation Measures

**Mitigation Measure 3.10-1a:** DWR shall incorporate into contract specifications the requirements that:

- Fencing shall be maintained around the perimeter of the construction zone including at the lake shore at all times during construction. Fencing at the lake shore would be designed to prevent any vessel from reaching the shoreline within the construction zone.
- Signs shall be posted in English and Spanish on the fence warning visitors to stay outside the construction zones.
- Construction equipment and trailers shall be secured each day in order to prevent items from being stolen or damaged.

- Construction contractors shall be provided training to be aware of park visitors. Any visitors seen within the construction zone shall be immediately escorted out.

**Mitigation Measure 3.10-1b:** DWR shall coordinate with California State Parks personnel to develop a site safety plan for the construction activities. The plan would identify construction zone access including fencing and gate control, routine patrolling, and signage.

**Significance after Mitigation:** Less than Significant.

---

### ***Summary of Impacts and Mitigation Measures***

**Table 3.10-1** presents the impacts and mitigation summary for Public Safety/Flooding.

**TABLE 3.10-1  
PUBLIC SAFETY IMPACTS AND MITIGATION SUMMARY**

Proposed Project Impact	Mitigation Measure	Significance After Mitigation
<b>Hazard Exposure for Lake Perris SRA Visitors:</b> Construction of the proposed project could expose Lake Perris SRA visitors to hazards from construction activities.	3.10-1a and 3.10-1b	Less than Significant